World-Class Equipment & Process Expertise

HFX Deionization Systems

HIGH FLOW IX FOR INDUSTRIALAPPLICATIONS

From 35 to 135 gpm

Reverse Osmosis Water Purification Hydrus Water Softening & Filtration Ion Exchange Rinsewater Recycling
Proprietary Precipitation Chemistry Zero-Liquid Discharge Evaporation Batch/Continuous Waste Treatment

350 N Engel St. Escondido, CA 92029 - 760.294.1888 - sales@waterinnovations.net

HFX

The most cost-effective approach available to recycle rinse water & achieve environmental compliance

Benefits

- Highest flow with the lowest foot-print
- Low operating cost & low waste volumes
- Water, sewer and treatment costs savings
- In a Duplex design for continuous operation
- Closed loop operation reducing sewer discharge
- Color Touch-screen Human Machine Interface
- Simple to install skid-mounted pre-piped & -wired

Industry Applications

- Electroplating
- Metal Finishing
- Printed Circuit Board
- Electronics Components
- Paint & Powder Coating
- Photographic Processing
- Parts Washing & Phosphating

Process Applications

- Copper Rinse Water Recycling
- Nickel Rinse Water Recycling
- Tin/Lead Rinse Water Recycling
- Chrome Rinse Water Recycling
- Electroless Rinse Recycling
- Selective Metal Scavenging

The Water Innovations, Inc. High Flow Ion Exchange (HFX) Series is engineered as a comprehensive skid-mounted package for cost effective water purification. Deionization will improve the overall quality of your feedwater. It removes total dissolved solids (TDS) effectively and economically making your water useful for high-purity rinsing, making up critical process chemistries and cleaning surfaces for applying perfect coatings.

ProductsThat MeetYour Specifications

HFX Series systems are available in five standard sizes: 35, 55, 75, 115 and 135 gallons per minute (gpm).

The recommended feedwater TDS concentration is less than 600 mg/liter. (We can also purify feedwater with TDS concentrations above that level – ask us how we can help!)

The HFX Series produce pure deionized water.The conductivity is less than 5 microsiemens, less than 2 mg/l TDS.

System Extras / Options

Water Innovations, Inc. will work with you to determine other system needs, such as a booster pump, a properly-sized neutralization system, DI water storage, repressurization and/or ultraviolet disinfection.

Choices

Different applications have different requirements. That's why we created three designs from which you can choose.

Simplex Systems have single cation and anion resin tanks, the smallest footprint and lowest cost of any of our systems.They require a larger DI storage tank to assure a continuous supply of water during regeneration.

Duplex Systems have two cation and two anion resin tanks, and are available in two configurations, Duplex Series and Duplex Plus Series, each assuring a continuous supply of deionized water.

Duplex Series systems are designed for facilities that have planned shutdowns, allowing infrequent maintenance to occur during those times.

Duplex Plus Series systems are designed for facilities that operate 24 hours a day, seven days per week. Infrequent maintenance can take place with the system in operation.The footprint for Duplex Plus Series systems is slightly larger than Duplex Series systems with the same capacity.

CompleteTraining and Field Support

Water Innovations, Inc. supplies start-up, training and field support on every system sold. Our systems are backed by responsive, factory-authorized service technicians.

Process and Parts Warranty

Water Innovations, Inc. offers both a process and parts warranty and our full support to guarantee that you get the water quality you expect.

Engineered for efficiency, simplicity and reliability

Simplex System Design

Each system uses one tank of both cation and anion resin, providing continuous operation, except during regeneration.

Duplex System Design

Each system uses two tanks of both cation and anion resin, providing continuous operation, even during regeneration.

Packed Bed, Countercurrent Regeneration

Countercurrent regeneration uses up to 50 percent less chemicals and 50 percent less water than conventional deionization systems, reduces waste and produces superior quality water at lower operating costs.

Patented* Feed Forward Control

A programmable logic controller initiates all regeneration functions, delivering consistent, high quality water automatically. By monitoring the influent water conductivity and flow rate, the system constantly adjusts to changing inlet water conditions. This reduces chemical consumption and waste, while producing high quality water and savings on operating costs.

Application-specific Resins

Each resin is carefully selected by our engineers to match the specific demands of each application.

Skid Mounted / Pre-piped

Completely prepackaged, pre-piped and skid-mounted, **Water Innovations, Inc.** High Purity Deionization Systems require minimal floor space, install quickly and can be easily relocated.

PLC Control and User-Friendly Interface

Any system condition that requires operator attention is alarmed and indicated on the panel. System setpoints can be adjusted (password protected) by the operator without PLC programming.

Guarantee

We guarantee, in writing, the performance of every system we sell, assuring you of our total commitment to reliable water treatment.

Modem

Allows for remote system monitoring and program upgrades.

**U.S. Patent Nos. 5,069,779 and 5,022,994*

HFX Ion Exchange Water Recycling Systems

Each system includes on separate epoxy-coated steel (or optional stainless steel) frames, bag filters with redundant capacity, Hydrus automatic backwashing carbon filters, cation exchanger, and anion exchanger. System controls utilize PLC and touch screen for system operation and historical data monitoring.

Best-In-Class System Controls

Automated with Rockwell Automation

Allen-Bradley · Rockwell Software

Flow(gpm)		Simplex	Duplex	Duplex + Series
35	No. of Bag Filters	2	2	2
	Carbon Tank Size	10ft^3, One 30"D x 72" H	16ft^3, Two 24"D x 65"H	Same
	Resin Tank Size	28 ft^3, Two 24" D x 72"H	56 ft^3, Four 24"D x72"H	Same
	Apx.Space Required	9' x 10' x 10' H	10 x 16' x 10' H	12' x 20' x 10' H
55	No. of Bag Filters	2	2	2
	Carbon Tank Size	14ft^3, One 36"D x 72" H	20Ft^3,Two 30"D x 72"H	Same
	Resin Tank Size	44 ft^3, Two 30" D x 72"H	88 ft^3, Four 30"D x72"H	Same
	Apx.Space Required	9' x 10' x 10' H	10 x 16' x 10' H	12' x 20' x 10' H
75	No. of Bag Filters	2	4	4
	Carbon Tank Size	20ft^3, One 30"D x 72" H	28ft^3,Two 36"D x 72"H	Same
	Resin Tank Size	62 ft^3, Two 36" D x 72"H	120ft^3,Four 36"D x72"H	Same
	Apx.Space Required	9' x 10' x 10' H	13' x 19' x 10' H	14' x 23' x 10' H
115	No. of Bag Filters	2	4	4
	Carbon Tank Size	28ft^3, One 36"D x 72" H	52ft^3,Two 42"D x 72"H	Same
	Resin Tank Size	80 ft^3, Two 42" D x 72"H	160ft^3,Four 42"D x72"H	Same
	Apx.Space Required	11' x 13' x 10' H	13' x 19' x 10' H	14' x 23' x 10' H
135	No. of Bag Filters	Not Available	4	4
	Carbon Tank Size		42ft^3,Three 36"Dx72"H	Same
	Resin Tank Size		220ft^3,Four 48"D x72"H	Same
	Apx.Space Required		13' x 19' x 10' H	14' x 23' x 10' H

Additional Equipment Packages

Storage Tank	for deionized water storage
Repressurization Pump	for transfer of deionized water
Submicron Filtration	for low particle count water
Backwashing Filter	for suspended solids removal
Neutralizer	for automatic neutralization of regenerants
Cation Polisher	for water purity greater than 3 megohm-cm
Ultraviolet Sterilization	for biological control of process water
Chemical Reuse Option	saves up to 30% of chemical costs
Monitoring and Data Logging	for SPC and ISO records

WATERINNOVATIONS inc
350 Engel Street Escondido, CA 92029
waterinnovations.net – 760.294.1888
sales@waterinnovations.net